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NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	Feb 24	PCTGEN now available on STN
NEWS 4	Feb 24	TEMA now available on STN
NEWS 5	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS 6	Feb 26	PCTFULL now contains images
NEWS 7	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 8	Mar 24	PATDPAFULL now available on STN
NEWS 9	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 10	Apr 11	Display formats in DGENE enhanced
NEWS 11	Apr 14	MEDLINE Reload
NEWS 12	Apr 17	Polymer searching in REGISTRY enhanced
NEWS 13	Jun 13	Indexing from 1947 to 1956 added to records in CA/CAPLUS
NEWS 14	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS 15	Apr 28	RDISCLOSURE now available on STN
NEWS 16	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS 17	May 15	MEDLINE file segment of TOXCENTER reloaded
NEWS 18	May 15	Supporter information for ENCOMPPAT and ENCOMPLIT updated
NEWS 19	May 19	Simultaneous left and right truncation added to WSCA
NEWS 20	May 19	RAPRA enhanced with new search field, simultaneous left and right truncation
NEWS 21	Jun 06	Simultaneous left and right truncation added to CBNB
NEWS 22	Jun 06	PASCAL enhanced with additional data
NEWS 23	Jun 20	2003 edition of the FSTA Thesaurus is now available
NEWS 24	Jun 25	HSDB has been reloaded
NEWS 25	Jul 16	Data from 1960-1976 added to RDISCLOSURE
NEWS 26	Jul 21	Identification of STN records implemented
NEWS 27	Jul 21	Polymer class term count added to REGISTRY
NEWS 28	Jul 22	INPADOC: Basic index (/BI) enhanced; Simultaneous Left and Right Truncation available

NEWS EXPRESS	April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
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NEWS LOGIN	Welcome Banner and News Items
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FILE COVERS 1907 - 30 Jul 2003 VOL 139 ISS 5
FILE LAST UPDATED: 29 Jul 2003 (20030729/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s silica (1a) alumina
        412333 SILICA
          3124 SILICAS
        412670 SILICA
                  (SILICA OR SILICAS)
        234518 ALUMINA
          2332 ALUMINAS
        234775 ALUMINA
                  (ALUMINA OR ALUMINAS)
L1       19962 SILICA (1A) ALUMINA

=> s silica alumina
        412333 SILICA
          3124 SILICAS
        412670 SILICA
                  (SILICA OR SILICAS)
        234518 ALUMINA
          2332 ALUMINAS
        234775 ALUMINA
                  (ALUMINA OR ALUMINAS)
L2        8208 SILICA ALUMINA
                  (SILICA(W)ALUMINA)

=> s s l2 and (fischer (1a) tropsch or hydrocarbon? (1a) synthesi?)
MISSING OPERATOR S L2
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.
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```
=> s l2 and (fischer (1a) tropsch or hydrocarbon? (1a) synthesi?)
         20662 FISCHER
            25 FISCHERS
         20672 FISCHER
                 (FISCHER OR FISCHERS)
          6450 TROPSCH
          6364 FISCHER (1A) TROPSCH
        456537 HYDROCARBON?
       1274840 SYNTHESI?
          3512 HYDROCARBON? (1A) SYNTHESI?
L3          51 L2 AND (FISCHER (1A) TROPSCH OR HYDROCARBON? (1A) SYNTHESI?)

=> s l3 and (Group VIII or cobalt)
       1315240 GROUP
        857301 GROUPS
       1843817 GROUP
                 (GROUP OR GROUPS)
         98281 VIII
             5 VIIIS
         98283 VIII
                 (VIII OR VIIIS)
         11232 GROUP VIII
                 (GROUP(W)VIII)
        317910 COBALT
            92 COBALTS
        317917 COBALT
                 (COBALT OR COBALTS)
L4          14 L3 AND (GROUP VIII OR COBALT)

=> s l3 and surface area
       1833986 SURFACE
        359482 SURFACES
       1982045 SURFACE
                 (SURFACE OR SURFACES)
        488889 AREA
        221744 AREAS
        664000 AREA
                 (AREA OR AREAS)
        105238 SURFACE AREA
                 (SURFACE(W)AREA)
L5           6 L3 AND SURFACE AREA

=> s l5 or l4
L6          17 L5 OR L4

=> d l6 ibib ab 1-17

L6   ANSWER 1 OF 17  CAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:         2003:545775  CAPLUS
TITLE:                    Method and apparatus for producing high molecular
                          weight liquid hydrocarbons from methane and/or natural
                          gas
INVENTOR(S):              Harford, Steven Thomas; Borsa, Alessandro Giorgio;
                          Vanderborgh, Nicholas Ernest
PATENT ASSIGNEE(S):       Blue Star Sustainable Technologies Corporation, USA
SOURCE:                   U.S., 6 pp.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:
```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6593377	B1	20030715	US 2002-83176	20020226

PRIORITY APPLN. INFO.: US 2002-83176 20020226

AB A mixt. of natural gas and air is converted to a C5-C19 diesel fuel-grade liq. hydrocarbon. The natural gas and air mixt. is supplied to the input of a catalytic partial oxidn. reactor. The carbon-contg. gas output of the catalytic partial oxidn. reactor is connected as an input to a first **Fischer-Tropsch** reactor, to thereby form a first diesel fuel grade C5-C19 liq. hydrocarbon output. A carbon-contg. gas output of the first **Fischer-Tropsch** reactor is connected to the input of a second **Fischer-Tropsch** reactor, to thereby form a second diesel fuel grade C5-C19 liq. hydrocarbon output. The catalytic partial oxidn. reactor contains a platinum group catalyst, a promoted platinum group catalyst, a rhodium catalyst, or a platinum promoted rhodium catalyst. Each of the **Fischer-Tropsch** reactors contain a catalyst that is made up of from about 3 to about 60 parts-by-wt. **cobalt** and from about 0.1 to about 100 parts-by-wt. of at least one metal selected from a group consisting of cerium, lanthanum and ruthenium per 100 parts-by-wt. of a support selected from a group consisting of **silica**, **alumina** and combinations of silica and alumina, and more preferably a catalyst that is made up of about 20 percent by wt. **cobalt**, about 0.1 percent by wt. ruthenium, about 0.1 percent by wt. platinum, the remainder being an alumina support.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:202591 CAPLUS
DOCUMENT NUMBER: 138:240423
TITLE: Promoted catalysts and **Fischer-Tropsch** processes
INVENTOR(S): Ionkina, Olga P.; Makar, Kamel M.; Manzer, Leo E.; Subramanian, Munirpallam A.
PATENT ASSIGNEE(S): Conoco Inc., USA
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003020665	A2	20030313	WO 2002-US27726	20020830

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003065043	A1	20030403	US 2002-230496	20020829

PRIORITY APPLN. INFO.: US 2001-316826P P 20010831
US 2002-230496 A 20020829

AB A process is disclosed for producing hydrocarbons. The process involves

contacting a feed stream comprising hydrogen and carbon monoxide with a catalyst in a reaction zone maintained at conversion-promoting conditions effective to produce an effluent stream comprising hydrocarbons. In accordance with this invention, the catalyst used in the process includes at least a **Fischer-Tropsch** metal and a promoter selected from the group consisting of molybdenum, tin, gallium, and zinc. The **Fischer-Tropsch** metal preferably includes **cobalt**. The catalyst may also include a support material selected from the group including silica, titania, titania/alumina, zirconia, alumina, **silica-alumina**, aluminum fluoride, and fluorided aluminas.

L6 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:634311 CAPLUS
DOCUMENT NUMBER: 137:171390
TITLE: **Fischer-Tropsch** process for the **synthesis** of **hydrocarbons** from **synthesis** gas in the presence of a catalyst comprising a Group VIIIB metal supported on a **silica-alumina** mixture
INVENTOR(S): Roy-Auberger, Magalie; Courty, Philippe; Revel, Renaud; Zennaro, Roberto
PATENT ASSIGNEE(S): Institut Francais Du Petrole, Fr.; Eni S.P.A.; Agip Petroli S.P.A.
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1233011	A1	20020821	EP 2002-290205	20020129
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
FR 2821074	A1	20020823	FR 2001-2241	20010216
NO 2002000775	A	20020819	NO 2002-775	20020215
US 2002132865	A1	20020919	US 2002-75235	20020215

PRIORITY APPLN. INFO.: FR 2001-2241 A 20010216
US 2000-186300P P 20000301

AB Hydrocarbons are manufd. in high yield from synthesis gas in the presence of a catalyst comprising a Group VIIIB metal supported on a **silica-alumina** mixt. which support is is prepd. by copptn. and calcination at 500-1200.degree. over .gtoreq.6 h in such a manner such that the **silica-alumina** has a BET **surface area** of <260 m2/g; the catalyst may be used in a fixed bed, or in a liq.-phase suspension in a triphasic reactor.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:107223 CAPLUS
DOCUMENT NUMBER: 136:153771
TITLE: Steam-water oxidation for activation of **cobalt**-based catalyst precursors for **Fischer-Tropsch** reaction
INVENTOR(S): Clavenna, Leroy Russell; Woo, Hyung Suk; Mauldin, Charles Harrison; Wachter, William Augustine
PATENT ASSIGNEE(S): Exxonmobil Research and Engineering Company, USA
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002009871	A2	20020207	WO 2001-US22026	20010713
WO 2002009871	A3	20020418		
W: AU, CA, JP, NO, SG				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 6521565	B1	20030218	US 2000-630278	20000801
EP 1325098	A2	20030709	EP 2001-952691	20010713
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				

PRIORITY APPLN. INFO.: US 2000-630278 A 20000801
WO 2001-US22026 W 20010713

AB A catalyst precursor for the **Fischer-Tropsch** reaction, comprising a composite of solids (e.g., a metal component, or a metal salt or metal compd.) on a solids support, is activated prior to hydrogenation by low-temp. contact with steam or liq. water sufficient to oxidize and convert the metal component(s) to a metal hydroxide or low-valent metal oxide. The catalysts consist of **cobalt** and a Group VIIB metal or a **Group VIII** metal (other than **cobalt**, thorium, or copper), preferably **cobalt**-ruthenium or **cobalt**-rhenium. Suitable supports include zeolites, alumina, silica **silica-alumina**, titania (rutile), zirconia, and zirconia-silicates.

L6 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:868304 CAPLUS
DOCUMENT NUMBER: 136:8879
TITLE: Ferrihydrite-phase iron-based **Fischer-Tropsch** catalysts for production of paraffins, olefins, and alcohols
INVENTOR(S): Dlamini, Thulani Humphrey; Espinoza, Rafael Luis; Joorst, Genevieve
PATENT ASSIGNEE(S): Sasol Technology (Proprietary) Limited, S. Afr.; Mdleleni, Masikana Millan; Visagie, Jacobus Lucas
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001089686	A2	20011129	WO 2001-IB904	20010523
WO 2001089686	A3	20020404		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2000-206523P P 20000523
ZA 2000-2549 A 20000523

AB An iron-based **Fischer-Tropsch** catalyst is described in which >75% of the iron phase is ferrihydrite. The catalyst compn. includes structural promoters selected from Mn and Cr, chem. promoters (selected from Mg, Zn, Cu, Ru, Pd, Rh, and alkali and alk. earth metals), and 1-30 wt.% of a refractory inorg. oxide (selected from SiO2, Al2O3, or **silica-alumina**). Such compns. have a **surface area** of 100-200 m2/g. The catalyst compn. produces significant yields of higher paraffins, olefins, and alcs.

L6 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:615570 CAPLUS
DOCUMENT NUMBER: 135:182902
TITLE: Process for **synthesis** of **hydrocarbons** in the presence of a catalyst comprising **group VIII** metals supported on **silica-alumina**
INVENTOR(S): Roy-Auberger, Magalie; Courty, Philippe; Normand, Laurent; Zennaro, Roberto
PATENT ASSIGNEE(S): Institut Francais Du Petrole, Fr.; Agip Petroli S.P.A.; Eni S.P.A.
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1126008	A1	20010822	EP 2001-400236	20010130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2804689	A1	20010810	FR 2000-1618	20000208
FR 2804689	B1	20020315		
CA 2334498	AA	20010808	CA 2001-2334498	20010207
NO 2001000646	A	20010809	NO 2001-646	20010207
US 2002013375	A1	20020131	US 2001-778842	20010208
US 6465530	B2	20021015		

PRIORITY APPLN. INFO.: FR 2000-1618 A 20000208
AB Hydrocarbons are produced from a synthesis gas contg. CO and H2 in the presence of a catalyst contg. .gtoreq.1 **Group VIII** metal (e.g., Co) on a **silica-alumina** support (**surface area** <260 m2/g) prepd. by co-prepn. and calcining for .gtoreq.6 h at 500-1,200.degree.. Optionally, the catalyst also contains .gtoreq.1 metal from a group of Ru, Mo, Ta, Pt, and Pd and/or .gtoreq.1 oxide from a group of La, Pr, and Nd.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:376834 CAPLUS
DOCUMENT NUMBER: 134:369218
TITLE: Production of middle distillates from linear paraffins by hydrocracking
INVENTOR(S): Calemma, Vincenzo; Peratello, Stefano; Perego, Carlo; Pavoni, Silvia; Guanziroli, Silvia
PATENT ASSIGNEE(S): Agip Petroli S.p.A., Italy; Enitecnologie S.p.A.
SOURCE: Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1101813	A1	20010523	EP 2000-204037	20001116
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
IT 99MI2425	A1	20010521	IT 1999-MI2425	19991119
IT 2000MI1819	A1	20020204	IT 2000-MI1819	20000804
NO 2000005840	A	20010521	NO 2000-5840	20001117
US 6544407	B1	20030408	US 2000-714136	20001117

PRIORITY APPLN. INFO.: IT 1999-MI2425 A 19991119
IT 2000-MI1819 A 20000804

AB A mixt. of linear hydrocarbons contg. .gtoreq.20% fraction b. >370.degree. is subjected to hydrocracking at 250-450.degree. and 0.5-15 MPa so that .gtoreq.40% (preferably 60-95%) of the high-boiling fraction is converted to a fraction b. <370.degree.. The hydrocracking is carried out in the presence of a catalyst consisting of (1) an acidic calcined **silica -alumina** gel support (amorphous to x-rays, SiO2/Al2O3 mol ratio of (30-500):1, **surface area** of 500-1,000 m2/g, porosity 0.2-0.8 mL/g, av. pore diam. 10-40 .ANG.) and (2) 0.05-5 wt.% noble metal(s), esp. Pt or Pd. The resulting middle distillate is sepd. to kerosene and gas oil fractions. Preferably, the process is suitable for treatment of byproducts from the **Fischer-Tropsch** process.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1997:155042 CAPLUS
DOCUMENT NUMBER: 126:159648
TITLE: Process for hydroisomerization of waxy hydrocarbon feeds over a slurried catalyst
INVENTOR(S): Davis, Stephen Mark; Johnson, Jack Wayne; Mart, Charles John; Ryan, Daniel Francis; Wittenbrink, Robert Jay
PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 753563	A1	19970115	EP 1996-110796	19960704
EP 753563	B1	19991103		
R: BE, DE, FR, GB, IT, NL				
CA 2179093	AA	19970115	CA 1996-2179093	19960613
JP 09169984	A2	19970630	JP 1996-199821	19960710
NO 9602940	A	19970115	NO 1996-2940	19960712
AU 9660511	A1	19970123	AU 1996-60511	19960712
AU 702829	B2	19990304		

PRIORITY APPLN. INFO.: US 1995-502336 19950714

AB A hydroisomerization process for the conversion of a C5+ paraffinic feedstock, esp. a **Fischer-Tropsch** wax, and hydrogen, to middle distillates by contact thereof at hydroisomerization reaction conditions with a catalyst comprised of a Group IB metal, a Group VIB metal, a **Group VIII** metal, or mixt. of two or more of said metals, supported on **silica-alumina** slurried in a paraffinic liq. The catalyst particles are contained in the slurry in

concn. greater than .apprx.10% preferably greater than .apprx.25% and the av. diam. of the particles range from .apprx.30 .mu.m to .apprx.150 .mu.m, preferably from .apprx.40 .mu.m to .apprx.60 .mu.m.

L6 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1995:342190 CAPLUS
DOCUMENT NUMBER: 123:60846
TITLE: ZSM-5 as a support for **cobalt** **Fischer-Tropsch** catalysts
AUTHOR(S): Bessell, S.
CORPORATE SOURCE: Melbourne Laboratories, BHP Research, Clayton, 3169, Australia
SOURCE: Studies in Surface Science and Catalysis (1994), 81(Natural Gas Conversion II), 461-6
CODEN: SSCTDM; ISSN: 0167-2991
DOCUMENT TYPE: Journal
LANGUAGE: English
AB ZSM-5 **silica/alumina** ratio and crystal size were investigated for their effect on the performance of Co/ZSM-5 **Fischer-Tropsch** catalysts. Carbon monoxide conversion was enhanced by the use of high alumina and small crystallite ZSM-5 supports, while assocd. product selectivities were shifted from methane to higher hydrocarbons which were lighter and more branched. The increased activity and higher hydrocarbon selectivity of the high alumina ZSM-5 supported catalysts were ascribed to the obsd. increase in the capacity for carbon monoxide adsorption relative to hydrogen, while the increased lightness and branching in the product were ascribed to the enhancement of the secondary acid catalyzed oligomerization, isomerization, and cracking reactions due to the increased concn. of strong Broensted acid sites. The improvement of carbon monoxide conversion obtained when small crystal ZSM-5 supports were used was most probably a result of an increased external **surface area** upon which to disperse the **cobalt** metal. The enhancement of the secondary acid catalyzed reactions obtained when small crystal ZSM-5 supports were used indicated that the restructuring took place on external acid sites and acid sites close to the pore mouths of the ZSM-5, rather than deep within the zeolite. Lighter hydrocarbons were more prone to this secondary restructuring than longer chained hydrocarbons.

L6 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1994:274975 CAPLUS
DOCUMENT NUMBER: 120:274975
TITLE: Promoting effects of thoria and molybdena on **cobalt** catalysts in the hydrogenation of CO
AUTHOR(S): Chen, Y.Z.; Wang, T.H.
CORPORATE SOURCE: Dep. Chem. Eng., Natl. Cent. Univ., ChungLi, 32054, Taiwan
SOURCE: Catalysis Letters (1993), 22(3), 165-77
CODEN: CALEER; ISSN: 1011-372X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Thoria- or molybdena-promoted Co/**silica** (**alumina**) catalysts were prepd. by co-impregnation. The catalysts were characterized by temp. programmed redn. and temp. programmed surface reaction techniques and hydrogenation of carbon monoxide. Thoria enhanced not only the activity but also the selectivity of olefins and long-chain alkanes. Molybdena effectively promoted only the activity, but did not alter the product distribution pattern. Thoria and molybdena exhibited a tendency to spread onto and to interact intimately with alumina; the promoting effects on alumina were much less pronounced than on silica.

L6 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1993:521095 CAPLUS
DOCUMENT NUMBER: 119:121095
TITLE: Process for the preparation of middle distillates
INVENTOR(S): Van Ballegoy, Carolus Maria; Daamen, Jacobus Theodorus; Gilson, Jean Pierre; Klazinga, Aan Hendrik; Hoek, Arend
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B. V., Neth.
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 537815	A1	19930421	EP 1992-202740	19920909
EP 537815	B1	19970502		
R: BE, DE, FR, GB, IT, NL				
CA 2077936	AA	19930313	CA 1992-2077936	19920910
NO 9203523	A	19930315	NO 1992-3523	19920910
AU 9223514	A1	19930318	AU 1992-23514	19920910
AU 653858	B2	19941013		
ZA 9205893	A	19930428	ZA 1992-5893	19920910
ZA 9206893	A	19930428	ZA 1992-6893	19920910
JP 06041549	A2	19940215	JP 1992-266820	19920910
JP 3210742	B2	20010917		

PRIORITY APPLN. INFO.: GB 1991-19505 A 19910912

AB Middle distillates are prepd. from a hydrocarbon feed by contacting the feed at elevated temp. and pressure in the presence of H with a catalyst contg. Pt supported on a **silica-alumina** carrier prepd. from an amorphous **silica-alumina** starting material having a pore vol. of >1.0 mL/g. The hydrocarbon feed is obtained by a **Fischer-Tropsch** synthesis and has a fraction with b.p. higher than that of the middle distillates.

L6 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1993:452709 CAPLUS
DOCUMENT NUMBER: 119:52709
TITLE: Process for the activation of a **Fischer-Tropsch** catalyst
INVENTOR(S): Hu, Michael C.; Ansorge, Joachim
PATENT ASSIGNEE(S): Shell Canada Ltd., Can.
SOURCE: Can. Pat. Appl., 25 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2076324	AA	19930221	CA 1992-2076324	19920818
EP 533228	A1	19930324	EP 1992-202517	19920817
EP 533228	B1	19961106		
R: DE, FR, GB, IT, NL				
NO 9203236	A	19930222	NO 1992-3236	19920818
AU 9221129	A1	19930225	AU 1992-21129	19920818
AU 646176	B2	19940210		
JP 05200314	A2	19930810	JP 1992-240080	19920818
JP 3361552	B2	20030107		

PRIORITY APPLN. INFO.: GB 1991-17948 A 19910820

AB A **Fischer-Tropsch** catalyst, e.g., Co on **silica**, **alumina**, titania, or their mixts. as a carrier with a Zr promoter, is activated by contacting the catalyst with a H2-contg. gas in a first stage at a pressure of .ltoreq.5 bar, rapidly increasing the pressure to .gtoreq.10 bar, and then contacting the catalyst with a H2-contg. gas in a second stage at this pressure. The process may also be used to reactivate an at least partially exhausted catalyst. The catalyst, once activated, may be used in the **synthesis** of **hydrocarbons** from H2 and CO.

L6 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1993:431359 CAPLUS
DOCUMENT NUMBER: 119:31359
TITLE: Silica modified hydroisomerization catalyst
INVENTOR(S): Davis, Stephen M.
PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5187138	A	19930216	US 1991-760266	19910916
CA 2077006	AA	19930317	CA 1992-2077006	19920827
CA 2077006	C	20011204		
NO 9203502	A	19930317	NO 1992-3502	19920909
EP 533451	A2	19930324	EP 1992-308415	19920916
EP 533451	A3	19930414		
EP 533451	B1	19971119		
R: DE, FR, GB, IT, NL				
US 5292989	A	19940308	US 1993-1955	19930108

PRIORITY APPLN. INFO.: US 1991-760266 A 19910916

AB A catalyst useful for hydroisomerizing wax-contg. feeds comprises a **Group VIII** metal on an alumina or **silica-alumina** support having <35% silica and is surface treated with .gtorsim.0.5 % silica or silica precursor. The silica used as a surface modifying agent adds somewhat different acidity to the catalyst than if a like amt. is used in the bulk support. The use of silica as a surface-modifying agent enhances cold flow properties, e.g., freeze point, particularly the pour point, of the resulting isomerate, resulting from increased branching of the product relative to the feed. Other benefits include improved catalyst activity and reduced selectivity for dry gas (light gas prodn.).

L6 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1992:155106 CAPLUS
DOCUMENT NUMBER: 116:155106
TITLE: Identification of novel catalysts and conditions for the highly efficient and stable heterogeneous oligomerization of ethylene
AUTHOR(S): Burwell, Robert L., Jr.
CORPORATE SOURCE: Northwestern Univ., IL, USA
SOURCE: Chemtracts: Inorganic Chemistry (1991), 3(4), 242-4
CODEN: CICHED; ISSN: 1051-7227
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Amorphous SiO2-Al2O3 (SiO2/Al2O3 = 72:1, **surface area** = 450 m2 g-1) supported Ni catalysts (prepd. by impregnation or ion

exchange) were developed for ethylene oligomerization in relation to manuf. of gasoline and diesel fuel-range hydrocarbons. The ion exchange-prepd. catalyst is a better catalyst for C2H4 conversion to diesel fuel, since it produced a C10+ fraction of 41% vs. 23% for the impregnation-prepd. catalyst. The catalyst can be used in the conversion of C2H4 from the **Fischer-Tropsch** Synthol process (Sasol, South Africa) and Mobil process (MeOH conversion into hydrocarbons); other sources of C2H4 (e.g., oxidative coupling of CH4) for the oligomerization are also taken into account.

L6 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1992:109921 CAPLUS
DOCUMENT NUMBER: 116:109921
TITLE: Process for the conversion of methanol into liquid hydrocarbons
INVENTOR(S): Scheffer, Bob; Kortbeek, Andras Guus Theodorus George
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B. V., Neth.
SOURCE: Eur. Pat. Appl., 6 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 455308	A2	19911106	EP 1991-201048	19910502
EP 455308	A3	19920108		
EP 455308	B1	19940824		
R: BE, DE, DK, ES, FR, GB, IT, NL, SE				
AU 9176074	A1	19911107	AU 1991-76074	19910429
AU 631310	B2	19921119		
CA 2041724	AA	19911105	CA 1991-2041724	19910502
JP 04227789	A2	19920817	JP 1991-128252	19910502
ES 2059036	T3	19941101	ES 1991-201048	19910502

PRIORITY APPLN. INFO.: GB 1990-10076 19900504
AB Hydrocarbons are prepd. from the conversion of MeOH feed at elevated temp. and pressure in the presence of a catalyst comprising (1) a porous carrier selected from **silica**, **alumina**, and their mixts., (2) Co as a metal component deposited on the carries, and (3) a promoter selected from Zr, Ti, Cr, Ru, Fe, Mg, Zn, Th, and U. The feed may further comprise H or synthesis gas. In cases where the feed comprises both MeOH and synthesis gas, MeOH in the feed may be prepd. from synthesis gas remaining after contact with the said catalyst.

L6 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1992:63119 CAPLUS
DOCUMENT NUMBER: 116:63119
TITLE: **Hydrocarbon synthesis** from carbon monoxide + hydrogen on impregnated **cobalt** catalysts. III. **Cobalt** (10%)/ **silica-alumina** catalysts
AUTHOR(S): Rathousky, J.; Zukal, A.; Lapidus, A.; Krylova, A.
CORPORATE SOURCE: J. Heyrovsky Inst. Phys. Chem. Electrochem., Prague, 182 23, Czech.
SOURCE: Applied Catalysis, A: General (1991), 79(2), 167-80
CODEN: ACAGE4; ISSN: 0166-9834
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The physicochem. properties of 10% Co/SiO2-Al2O3 catalysts prepd. by impregnation were studied by temp. programmed redn., thermoanal. and CO

adsorption. The temp. at which the catalyst was pretreated has a great influence on its adsorption capacity for CO. Both reduced and unreduced samples calcined in air at relatively high temps. adsorbed CO, but the reduced ones adsorbed much larger amts. The adsorption capacity tended to increase with increasing pretreatment temp. The character of CO temp. programmed desorption profiles and the proportions of the individual adsorption forms depend on the pretreatment temp. and the degree of Co redn. CO was adsorbed in 3 forms on species originating in Co-support interactions, metallic CO, and on Co3O4. Calcination in air caused a decrease of both Co redn. and the activity in **hydrocarbon synthesis**. While the yield of gaseous products remained const., liq. decreased substantially with increasing pretreatment temp., reaching a max. value when the degree of Co redn. was .apprx.40-50%. The av. carbon no. decreased with increasing Co redn. The catalytic properties of Co/SiO2-Al2O3 are more similar to those of Co/SiO2 than of Co/Al2O3, but Co/SiO2Al2O3 catalysts are less efficient in polymn. than either Co/SiO2 or Co/Al2O3. The hypothesis, suggesting that the adsorption centers of weakly bonded CO were involved in the prodn. of liq. hydrocarbons and that the Co oxide species act directly in this synthesis, was confirmed.

L6 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1985:542166 CAPLUS
DOCUMENT NUMBER: 103:142166
TITLE: Reactions of **silica-alumina** supported benzylidyne(nonacarbonyl)tricobalt under hydrogen, carbon monoxide, and synthesis gas
AUTHOR(S): Meyers, Gregory F.; Hall, Michael B.
CORPORATE SOURCE: Dep. Chem., Texas A and M Univ., College Station, TX, 77843, USA
SOURCE: Organometallics (1985), 4(10), 1770-5
CODEN: ORGND7; ISSN: 0276-7333
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 103:142166
AB The cluster PhCCo3(CO)9, contg. a capping PhC group, was supported on SiO2-Al2O3 by wet impregnation (pentane soln.) or dry mixing. The fate of the capping group was traced by monitoring the gas phase liberation of cyclic C6 and C7 hydrocarbons under CO, H2, and CO-H2 atmospheres. For the wet-impregnated material, the presence of CO favors the cyclic C6 product (C-C bond cleavage) and inhibits hydrogenolysis of the capping group (C-Co bond cleavage). A model accounting for this behavior proposes that CO inserts between the C-Co bond of intact surface clusters.